

## II. REMARKS

### Formal Matters

The specification is amended to refer to sequence identifiers. Support for the amendments is found in the specification and figures at, inter alia, Example 1, section A, page 15. Accordingly, no new matter is introduced by the amendments to the specification.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached is captioned "**VERSION WITH MARKINGS TO SHOW CHANGES MADE.**"

Applicants respectfully entry of the above-noted amendments to the specification.

### Objections to the specification

This communication is responsive to the Office Action which issued on September 13, 2001. The Office Action stated that the instant specification does not comply with the requirements of 37 C.F.R. §1.821-1.825. Applicants respectfully request the above-noted amendments to the specification.

### Sequence Listing

A new Sequence Listing is provided herewith, which is in compliance with the requirements of 37 C.F.R. §1.821-1.825. No new matter is added.

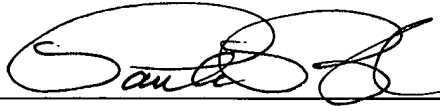
### III. CONCLUSION

If the Examiner finds that a telephone conference would expedite the prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extensions of time, or credit any overpayment to Deposit Account No. 50-0815, order number GRUE-003.

Respectfully submitted,  
BOZICEVIC, FIELD & FRANCIS LLP

Date: Oct. 12, 2001

By:   
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Registration No. 42,344

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**VERSION WITH MARKINGS TO SHOW CHANGES MADE**

Please enter the following amendments to the specification.

Please amend page 14, line 2, as follows:

[Total sequencing of gp190<sup>S</sup>] Figure 3C provides the native nucleotide sequence (gp190<sup>n</sup>; SEQ ID NO:1) encoding gp190; the synthetic nucleotide sequence (gp190<sup>s</sup>; SEQ ID NO:2) encoding gp190; and the amino acid (SEQ ID NO:3) of gp190.

Please amend page 14, line 3, as follows:

N- and C-termini of gp190<sup>S1</sup> and gp190<sup>S2</sup> variants [variant]

Please amend page 16, line 16, as follows:

D. N- and C-termini of gp190<sup>S1</sup> and gp190<sup>S2</sup> variants [variant] (see Fig. 3D)

Please amend the paragraph beginning on page 16, line 22, as follows:

The N-terminal and C-terminal sequences of gp120<sup>S1</sup> are provided as SEQ ID NO:4 and SEQ ID NO:5, respectively. Figure 3D depicts nucleotides 1-17 and 4863-4894 of SEQ ID NO:4 and amino acids 1-3 and 1619-1621 of SEQ ID NO:5. The N-terminal sequence of gp120<sup>S2</sup>, beginning with the BamHI cleavage site, indicates the transition at amino-acid 20, from which it can be assumed that after splitting of the signal peptide it defines the N-terminus. At the C-terminus the sequence encoded ended at amino-acid 1621. The stop-codon followed the ClaI cleavage site. The nucleotide and amino acid sequences of gp120<sup>S2</sup> are provided as SEQ ID NO:6 and SEQ ID NO:7, respectively. Figure 3D depicts nucleotides 1-17 and 4806-4838 of SEQ ID NO:6 and amino acids 1-3 and 1600-1602 of SEQ ID NO:7.

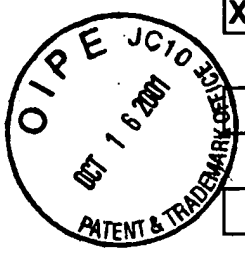
Please amend the paragraph beginning on page 17, line 3, as follows:

The gp120<sup>S2</sup> sequence was inserted via the BamHI and ClaI cleavage sites into pDS56RBSII, by means of which 6 histidine as well as some amino-acids originating in the vector were fused to the N-terminus. This produces the following N-terminal sequence on the reading-frame:

MetArgGlySer(His)<sub>6</sub>GlySer (SEQ ID NO:8). Through the promoter P<sub>N25lac0-1</sub> the transcription comes under lacR/O/IPTG control.

# NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- 
- ☒ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations.
  - ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
  - ☐ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
  - ☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
  - ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
  - ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
  - ☒ 7. Other: All disclosed sequences are not listed as required by 37 CFR § 1.821( c), because the sequences disclosed at least on page 17, line 6, and in Fig. 3D do not appear in either the CRF or the paper copy of the "Sequence Listing". Also, "SEQ ID NO:" identifiers must be entered as required by 37 CFR § 1.821( d).

## Applicant Must Provide:

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☒ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).
- ☒ Amendments to the specification directing entry of "SEQ ID NO:" identifiers into the specification.

For questions regarding compliance to these requirements, please contact:

For Rules Interpretation, call (703) 308-4216

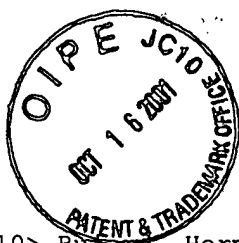
For CRF Submission Help, call (703) 308-4212

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To Purchase PatentIn Software.....703-306-2600

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OCT 22 2001

TECH CENTER 1600/2900

SEQUENCE LISTING

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<120> Recombinant Process for Preparing a Complete Malaria Antigen, GP190/MSP1

<130> GRUE-003

<140> 09/269,874

<141> 1999-08-02

<150> PCT/EP97/05441

<151> 1997-10-02

<150> DE 19640817.2

<151> 1996-10-02

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<211> 1639

<212> PRT

<213> Plasmodium falciparum

<400> 3

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Glu	Glu	Ser	Lys	Lys	Thr	Ile	Asp	Lys	Asn	Lys	Asn	Ala	Thr	Lys	Glu
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Glu	Lys	Glu	Leu	Lys	Tyr	Tyr	Lys	Asn	Leu	Ile	Ser	Lys	Ile	Glu	Asn
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Phe	Glu	Lys	Lys	Ile	Thr	Lys	Asp	Glu	Asn	Lys	Pro	Asp	Glu	Lys	Ile



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Cys Glu Cys Thr Lys Pro Asp Ser Tyr Pro Leu Phe Asp Gly Ile Phe						
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<212> DNA

<213> Plasmodium falciparum

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<211> 1621

<212> PRT

<213> Plasmodium falciparum

<400> 5

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Ala	Leu	Glu	Gly	Asp	Ser	Val	Gln	Ala	Gln	Ala	Gln	Glu	Gln	Lys	Gln	705	710	715
Ala	Gln	Pro	Pro	Val	Pro	Val	Pro	Val	Pro	Glu	Ala	Lys	Ala	Gln	Val	725	730	735
Pro	Thr	Pro	Pro	Ala	Pro	Val	Asn	Asn	Lys	Thr	Glu	Asn	Val	Ser	Lys	740	745	750
Leu	Asp	Tyr	Leu	Glu	Lys	Leu	Tyr	Glu	Phe	Leu	Asn	Thr	Ser	Tyr	Ile	755	760	765
Cys	His	Lys	Tyr	Ile	Leu	Val	Ser	His	Ser	Thr	Met	Asn	Glu	Lys	Ile	770	775	780
Leu	Lys	Gln	Tyr	Lys	Ile	Thr	Lys	Glu	Glu	Glu	Ser	Lys	Leu	Ser	Ser	785	790	795
Cys	Asp	Pro	Leu	Asp	Leu	Leu	Phe	Asn	Ile	Gln	Asn	Asn	Ile	Pro	Val			

				805					810					815			
Met	Tyr	Ser	Met	Phe	Asp	Ser	Leu	Asn	Asn	Ser	Leu	Ser	Gln	Leu	Phe		
			820					825					830				
Met	Glu	Ile	Tyr	Glu	Lys	Glu	Met	Val	Cys	Asn	Leu	Tyr	Lys	Leu	Lys		
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Thr	Ser	Val	Lys	Thr	Leu	Ser	Ser	Ser	Ser	Met	Gln	Pro	Leu	Ser	Leu		
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Thr	Pro	Gln	Asp	Lys	Pro	Glu	Val	Ser	Ala	Asn	Asp	Asp	Thr	Ser	His		
			885						890					895			
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Ser	Glu	Asn	Phe	Tyr	Glu	Lys	Ile	Leu	Lys	Asp	Ser	Asp	Thr	Phe	Tyr		
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Lys	Leu	Lys	Lys	Thr	Leu	Gln	Leu	Ser	Phe	Asp	Leu	Tyr	Asn	Lys	Tyr		
			980					985					990				
Lys	Leu	Lys	Leu	Glu	Arg	Leu	Phe	Asp	Lys	Lys	Lys	Thr	Val	Gly	Lys		
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Tyr	Lys	Met	Gln	Ile	Lys	Lys	Leu	Thr	Leu	Leu	Lys	Glu	Gln	Leu	Glu		
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Ser	Lys	Leu	Asn	Ser	Leu	Asn	Asn	Pro	Lys	His	Val	Leu	Gln	Asn	Phe		
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Ser	Val	Phe	Phe	Asn	Lys	Lys	Lys	Glu	Ala	Glu	Ile	Ala	Glu	Thr	Glu		
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